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 NEWS  2          "Ask CAS" for self-help around the clock
 NEWS  3  SEP 09  CA/CAplus records now contain indexing from 1907 to the
                  present
 NEWS  4  AUG 05  New pricing for EUROPATFULL and PCTFULL effective
                  August 1, 2003
 NEWS  5  AUG 13  Field Availability (/FA) field enhanced in BEILSTEIN
 NEWS  6  AUG 18  Data available for download as a PDF in RDISCLOSURE
 NEWS  7  AUG 18  Simultaneous left and right truncation added to PASCAL
 NEWS  8  AUG 18  FROSTI and KOSMET enhanced with Simultaneous Left and Righ
                  Truncation
 NEWS  9  AUG 18  Simultaneous left and right truncation added to ANABSTR
 NEWS 10  SEP 22  DIPPR file reloaded
 NEWS 11  SEP 25  INPADOC: Legal Status data to be reloaded
 NEWS 12  SEP 29  DISSABS now available on STN
 NEWS 13  OCT 10  PCTFULL: Two new display fields added
 NEWS 14  OCT 21  BIOSIS file reloaded and enhanced

 NEWS EXPRESS  OCTOBER 01 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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=> s 3()n()propylxanthine
L1          43 3(W) N(W) PROPYLXANTHINE

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          27 DUP REM L1 (16 DUPLICATES REMOVED)

=> d l2 ibib abs tot

L2   ANSWER 1 OF 27  USPATFULL on STN
ACCESSION NUMBER:        2003:244969  USPATFULL
TITLE:                   Medicinal compositions promoting bowel movement
INVENTOR(S):             Yasuda, Masahiro, Ibaraki, JAPAN
                         Harada, Hitoshi, Ibaraki, JAPAN
                         Miyazawa, Shuhei, Ibaraki, JAPAN
                         Kobayashi, Seiichi, Belmont, MA, UNITED STATES
                         Harada, Kokichi, Ibaraki, JAPAN
                         Hida, Takayuki, Ibaraki, JAPAN
                         Shibata, Hisashi, Ibaraki, JAPAN
                         Yasuda, Nobuyuki, Ibaraki, JAPAN
                         Asano, Osamu, Ibaraki, JAPAN
                         Kotake, Yoshihiko, Ibaraki, JAPAN

                              NUMBER         KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 2003171383      A1   20030911
APPLICATION INFO.:       US 2002-257091     A1   20021009  (10)
                         WO 2001-JP3643          20010426

                              NUMBER         DATE
                         ------------------ --------
PRIORITY INFORMATION:    JP 2000-126489     20000426
                         JP 2000-220124     20000721
DOCUMENT TYPE:           Utility
FILE SEGMENT:            APPLICATION
LEGAL REPRESENTATIVE:    BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS
                         CHURCH, VA, 22040-0747
NUMBER OF CLAIMS:        31
EXEMPLARY CLAIM:         1
LINE COUNT:              2491
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB       The present invention provides a medicament having a gentle but strong
         defecation-promoting action without causing diarrhea. That is, it
         provides a defecation-promoting agent comprising a compound having an
         adenosine A.sub.2 receptor antagonism, preferably an adenosine A.sub.2b
         receptor antagonism, or a salt thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2   ANSWER 2 OF 27  USPATFULL on STN
ACCESSION NUMBER:        2003:195050  USPATFULL
TITLE:                   Transmucosal phosphodiesterase inhibitors for the
                         treatment of erectile dysfunction
INVENTOR(S):             Doherty, Paul C., JR., Cupertino, CA, UNITED STATES
                         Place, Virgil A., Kawaihae, HI, UNITED STATES
                         Smith, William L., Mahwah, NJ, UNITED STATES

                              NUMBER         KIND    DATE
                         ---------------- ------ --------
PATENT INFORMATION:      US 2003134861      A1   20030717
APPLICATION INFO.:       US 2003-351198     A1   20030124  (10)
RELATED APPLN. INFO.:    Division of Ser. No. US 1999-467094, filed on 10 Dec
                         1999, GRANTED, Pat. No. US 6548490 Continuation-in-part
                         of Ser. No. US 1998-181070, filed on 27 Oct 1998,
                         GRANTED, Pat. No. US 6037346 Continuation-in-part of
                         Ser. No. US 1997-958816, filed on 28 Oct 1997,
                         ABANDONED
DOCUMENT TYPE:           Utility
FILE SEGMENT:            APPLICATION
LEGAL REPRESENTATIVE:    REED & EBERLE LLP, 800 MENLO AVENUE, SUITE 210, MENLO
                         PARK, CA, 94025
NUMBER OF CLAIMS:        42
```

LINE COUNT: 1138
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A pharmaceutical formulation is provided for treating erectile dysfunction in a mammalian male individual. The pharmaceutical formulation includes a phosphodiesterase inhibitor or a pharmaceutically acceptable salt, ester, amide or derivative thereof, that is administered transmucosally within the context of an effective dosing regimen. Preferred modes of administration include transbuccal, sublingual and transrectal routes. A kit for the administration of the pharmaceutical formulation is also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2003:102369 USPATFULL
TITLE: Transmucosal administration of phosphodiesterase inhibitors for the treatment of erectile dysfunction
INVENTOR(S): Doherty, Jr., Paul C., Cupertino, CA, United States
Place, Virgil A., Kawaihae, HI, United States
Smith, William L., Mahwah, NJ, United States
PATENT ASSIGNEE(S): Vivus, Inc., Mountain View, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6548490	B1	20030415
APPLICATION INFO.:	US 1999-467094		19991210 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-181070, filed on 27 Oct 1998, now patented, Pat. No. US 6037346
Continuation-in-part of Ser. No. US 1997-958816, filed on 28 Oct 1997, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Reamer, James H.
LEGAL REPRESENTATIVE: Reed, Dianne E., Reed & Associates
NUMBER OF CLAIMS: 51
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 1240
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for treating erectile dysfunction in a mammalian male individual. The method involves the transmucosal administration of a phosphodiesterase inhibitor or a pharmaceutically acceptable salt, ester, amide or derivative thereof, within the context of an effective dosing regimen. Preferred modes of administration include transbuccal, sublingual and transrectal routes. Pharmaceutical formulations and kits are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 4 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2002:295156 USPATFULL
TITLE: Compounds for inhibition of ceramide-mediated signal transduction
INVENTOR(S): Carson, Dennis A., Del Mar, CA, UNITED STATES
Cottam, Howard, Fallbrook, CA, UNITED STATES
PATENT ASSIGNEE(S): The Regents of the University of California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002165202	A1	20021107
	US 6562819	B2	20030513
APPLICATION INFO.:	US 2001-951198	A1	20010913 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-858778, filed on 19 May 1997, PATENTED Continuation-in-part of Ser. No. US 1994-367102, filed on 29 Dec 1994, ABANDONED
Continuation-in-part of Ser. No. US 1995-482551, filed on 7 Jun 1995, PATENTED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., P.O. BOX 2938, MINNEAPOLIS, MN, 55402
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Page(s)

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel, heterocyclic compounds having at least one ring nitrogen, disclosed side chains and, in some embodiments, an oxygen ortho to the ring nitrogen inhibit inflammatory responses associated with TNF-.alpha. and fibroblast proliferation in vivo and in vitro. The compounds of the invention neither appreciably inhibit the activity of cAMP phosphodiesterase nor the hydrolysis of phosphatidic acid, and are neither cytotoxic nor cytostatic. Preferred compounds of the invention are esters. Methods for the use of the novel compounds to inhibit ceramide-mediated intracellular responses in stimuli in vivo (particularly TN-.alpha.) are also described. The methods are expected to be of use in reducing inflammatory responses (for example, after angioplasty), in limiting fibrosis (for example, of the liver in cirrhosis), in inhibiting cell senescence, cell apoptosis and UV induced cutaneous immune suppression. Compounds having enhanced water solubility are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 5 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2002:67175 USPATFULL

TITLE: Administration of phosphodiesterase inhibitors for the treatment of premature ejaculation

INVENTOR(S): Wilson, Leland F., Menlo Park, CA, UNITED STATES
Doherty, Paul C., JR., Cupertino, CA, UNITED STATES
Place, Virgil A., Kawaihae, HI, UNITED STATES
Smith, William L., Montclair, NJ, UNITED STATES
Abdel-Hamid Abdou Ali, Ibrahim AbouBakr, Mansoura, EGYPT

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002037828	A1	20020328
	US 6403597	B2	20020611
APPLICATION INFO.:	US 2001-888250	A1	20010621 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-467094, filed on 10 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1998-181070, filed on 27 Oct 1998, GRANTED, Pat. No. US 6037346 Continuation-in-part of Ser. No. US 1997-958816, filed on 28 Oct 1997, ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 94
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 2011

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is provided for treatment of premature ejaculation by administration of a phosphodiesterase inhibitor, e.g., an inhibitor of a Type III, Type IV, or Type V phosphodiesterase. In a preferred embodiment, administration is on as "as needed" basis, i.e., the drug is administered immediately or several hours prior to sexual activity. Pharmaceutical formulations and packaged kits are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 6 OF 27 USPATFULL on STN

ACCESSION NUMBER: 2002:8498 USPATFULL

TITLE: Transmucosal administration of phosphodiesterase inhibitors for the treatment of erectile dysfunction

INVENTOR(S): Doherty, Paul C., JR., Cupertino, CA, UNITED STATES
Place, Virgil A., Kawaihae, HI, UNITED STATES
Smith, William L., Mahwah, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002004498	A1	20020110
APPLICATION INFO.:	US 2001-938417	A1	20010823 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-467094, filed on 10 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1998-181070, filed on 27 Oct 1998, GRANTED, Pat. No. US 6037346 Continuation-in-part of Ser. No. US 1997-958816, filed on 28 Oct 1997, ABANDONED

DOCUMENT TYPE: Utility

LEGAL REPRESENTATIVE: REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 58
EXEMPLARY CLAIM: 1
LINE COUNT: 1200
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for treating erectile dysfunction in a mammalian male individual. The method involves the transmucosal administration of a phosphodiesterase inhibitor or a pharmaceutically acceptable salt, ester, amide or derivative thereof, within the context of an effective dosing regimen. Preferred modes of administration include transbuccal, sublingual and transrectal routes. Pharmaceutical formulations and kits are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 7 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2002:4163 USPATFULL
TITLE: Method for identifying and using A2B adenosine receptor antagonists to mediate mammalian cell proliferation
INVENTOR(S): Belardinelli, Luiz, Menlo Park, CA, UNITED STATES
Grant, Maria B., Archer, FL, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002002142	A1	20020103	
APPLICATION INFO.:	US 2001-785895	A1	20010216	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-183141P	20000217 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: A. Blair Hughes, McDonnell Boehnen Hulbert & Berghoff, 32nd Floor, 300 S. Wacker Drive, Chicago, IL, 60606
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 453
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention concerns methods for identifying A.sub.2B adenosine receptor agonists and antagonists as well as methods for using A.sub.2B. adenosine receptor antagonists to treat cell proliferation orders mediated by the A.sub.2B adenosine receptor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 8 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2001:215051 USPATFULL
TITLE: Compounds for inhibition of ceramide-mediated signal transduction
INVENTOR(S): Carson, Dennis A., Del Mar, CA, United States
Cottam, Howard, Fallbrook, CA, United States
PATENT ASSIGNEE(S): The Regents of the University of California, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6323201	B1	20011127	
APPLICATION INFO.:	US 1997-858778		19970519	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-482551, filed on 7 Jun 1995, now patented, Pat. No. US 5843943
Continuation-in-part of Ser. No. US 1994-367102, filed on 29 Dec 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Ford, John M.
LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 1528
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel, heterocyclic compounds having at least one ring nitrogen, disclosed side chains and, in some embodiments, an oxygen ortho to the ring nitrogen inhibit inflammatory responses associated with TNF-.alpha.

invention neither appreciably inhibit the activity of cAMP phosphodiesterase nor the hydrolysis of phosphatidic acid, and are neither cytotoxic nor cytostatic. Preferred compounds of the invention are esters. Methods for the use of the novel compounds to inhibit ceramide-mediated intracellular responses in stimuli in vivo (particularly TN-.alpha.) are also described. The methods are expected to be of use in reducing inflammatory responses (for example, after angioplasty), in limiting fibrosis (for example, of the liver in cirrhosis), in inhibiting cell senescence, cell apoptosis and UV induced cutaneous immune suppression. Compounds having enhanced water solubility are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 9 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2001:52215 USPATFULL
TITLE: Use of theophylline derivatives for the treatment and prophylaxis of states of shock, novel xanthine compounds and processes for their preparation
INVENTOR(S): Gebert, Ulrich, Glashutten, Germany, Federal Republic of
Wolf, Erhard, Hofheim, Germany, Federal Republic of
Defossa, Elisabeth, Idstein, Germany, Federal Republic of
Heinelt, Uwe, Wiesbaden, Germany, Federal Republic of
Anagnostopulos, Hiristo, Wiesbaden, Germany, Federal Republic of
Rudolphi, Karl, Mainz, Germany, Federal Republic of
Grome, John J., Wiesbaden, Germany, Federal Republic of
PATENT ASSIGNEE(S): Hoechst Aktiengesellschaft, Frankfurt am Main, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6214992	B1	20010410	
APPLICATION INFO.:	US 1997-868641		19970604	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19622737	19960607
	DE 1996-19629815	19960724

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Berch, Mark L.
LEGAL REPRESENTATIVE: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
LINE COUNT: 1716
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Theophylline derivatives having at least one ether function in the structurally modified methyl radical in the 1-position that are useful in the treatment and prophylaxis of states of shock, new xanthine compounds having this substitution pattern, and processes for their preparation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 10 OF 27 MEDLINE on STN
ACCESSION NUMBER: 2001700409 MEDLINE
DOCUMENT NUMBER: 21583628 PubMed ID: 11726639
TITLE: Adenosine receptor antagonists and retinal neovascularization in vivo.
AUTHOR: Mino R P; Spoerri P E; Caballero S; Player D; Belardinelli L; Biaggioni I; Grant M B
CORPORATE SOURCE: Department of Molecular Biology and Genetics, University of Florida, Gainesville, FL 32610-0267, USA.
SOURCE: INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (2001 Dec) 42 (13) 3320-4.
Journal code: 7703701. ISSN: 0146-0404.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 20011220
Last Updated on STN: 20020216

AB PURPOSE: The role of adenosine receptor (AdoR) antagonists in human retinal endothelial cell function in vitro has previously been determined. In this study, efficacy of AdoR antagonist administration in reducing retinal neovascularization was examined in a mouse pup model of oxygen-induced retinopathy. METHODS: A previously described model of oxygen-induced retinal neovascularization in newborn mouse pups was used to examine the effect of various AdoR antagonists on neovascularization. The nonselective AdoR antagonist xanthine amine congener (XAC), the A(2A)-selective antagonist ZM241385, the A(2B)-selective antagonists ***3*** - ***N*** - ***propylxanthine*** (enprofylline) and 3-isobutyl-8-pyrrolidinoxanthine (IPDX), and the A(1)-selective antagonist cyclopentyl-1,3-dipropylxanthine (CPX) were used. After the hyperoxia exposure the animals received daily intraperitoneal injections of pharmacologically relevant doses of AdoR antagonists for 5 days. Control animals received vehicle (0.1% dimethyl sulfoxide [DMSO]) alone. The animals were then killed and perfused with fluorescein-dextran. Wholemounts of retinas from one eye were prepared and examined, whereas the retinas of the contralateral eye were embedded, sectioned, and stained for counting neovascular nuclei extending beyond the internal limiting membrane into the vitreous. RESULTS: Angiography of wholemount retinas showed reduction of neovascular tufts in animals treated with selective A(2B) AdoR antagonists. Quantification of the extraretinal neovascular nuclei showed that only animals treated with XAC, enprofylline, or IPDX showed a significant reduction in retinal neovascularization. By contrast, neither CPX nor ZM241385 had an effect on neovascularization. CONCLUSIONS: The A(2B)-selective AdoR antagonists inhibited oxygen-induced retinal neovascularization in vivo and may provide a basis for developing pharmacologic therapies for the treatment of proliferative retinopathies.

L2 ANSWER 11 OF 27 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2001433635 MEDLINE
DOCUMENT NUMBER: 21374019 PubMed ID: 11481274
TITLE: Proliferation, migration, and ERK activation in human retinal endothelial cells through A(2B) adenosine receptor stimulation.
AUTHOR: Grant M B; Davis M I; Caballero S; Feoktistov I; Biaggioni I; Belardinelli L
CORPORATE SOURCE: Department of Medicine, University of Florida, Gainesville 32610-0267, USA.. grantma@pharmacology.ufl.edu
SOURCE: INVESTIGATIVE OPHTHALMOLOGY AND VISUAL SCIENCE, (2001 Aug) 42 (9) 2068-73.
Journal code: 7703701. ISSN: 0146-0404.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 20010820
Last Updated on STN: 20010820
Entered Medline: 20010816

AB PURPOSE: The nucleoside adenosine has been implicated in angiogenesis. A previous study demonstrated that activation of the A(2B) adenosine receptor (AdoR) increases cAMP accumulation, cell proliferation, and VEGF expression in human retinal endothelial cells (HRECs). In the present study, the role of this receptor was further characterized by examination of the effects of the selective A(2B) AdoR antagonists ***3*** - ***N*** - ***propylxanthine*** (enprofylline) and 3-isobutyl-8-pyrrolidinoxanthine (IPDX) on AdoR-mediated HREC proliferation, capillary tube formation, and signal-transduction pathways. METHODS: HRECs were exposed to the adenosine analogue 5'-N-ethylcarboxamido-adenosine (NECA) in the absence or presence of AdoR antagonists. Migration was measured using Boyden chambers. Proliferation was assessed by counting cells. Western analysis was used to assess extracellular signal-related kinase (ERK) and cAMP response element-binding protein (CREB) in cell lysates. The effect of AdoR activation on tube formation was studied using cells grown on a synthetic basement membrane matrix. RESULTS: NECA induced proliferation in a concentration-dependent manner that was inhibited by enprofylline and IPDX. NECA stimulated chemotaxis in a concentration-dependent manner that was also blocked by both A(2B) AdoR antagonists. NECA activated ERK and CREB in HRECs. Both A(2B) AdoR antagonists diminished activation of ERK by NECA exposure. ERK activation was also blocked by the ERK-mitogen-activated protein kinase (MAPK) inhibitor PD98059, but not by the protein kinase A (PKA) inhibitor H-89. CREB activation was blocked by H-89, but not by PD98059, suggesting that ERK activation is independent of PKA. NECA enhanced tube formation on the matrix, whereas both A(2B) AdoR antagonists attenuated this effect.

inhibited NECA-stimulated proliferation, ERK activation, cell migration, and capillary tube formation. A(2B) AdoR inhibition may offer a way to inhibit retinal angiogenesis and provide a novel therapeutic approach to treatment of diseases associated with aberrant neovascularization, such as diabetic retinopathy and retinopathy of prematurity.

L2 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:304316 CAPLUS
DOCUMENT NUMBER: 132:318044
TITLE: Method for improving insulin sensitivity using an adenosine receptor antagonist
INVENTOR(S): Lanoue, Kathryn F.; Crist, George H.; Linden, Joel M.
PATENT ASSIGNEE(S): The Penn State Research Foundation, USA
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 86,101, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6060481	A	20000509	US 1999-259201	19990301

PRIORITY APPLN. INFO.: US 1998-86101 19980528
AB The invention relates to methods for improving insulin sensitivity in a patient using one or more A2B adenosine receptor antagonists [e.g. ***3*** - ***n*** - ***propylxanthine***] are disclosed. These methods stimulate insulin dependent glucose uptake in muscle.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2000:164509 USPATFULL
TITLE: Local administration of type III phosphodiesterase inhibitors for the treatment of erectile dysfunction
INVENTOR(S): Doherty, Jr., Paul C., Cupertino, CA, United States
Place, Virgil A., Kawaihae, HI, United States
Smith, William L., Mahwah, NJ, United States
PATENT ASSIGNEE(S): Vivus, Inc., Mountain View, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6156753		20001205
APPLICATION INFO.:	US 1999-437682		19991110 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-181070, filed on 27 Oct 1998, now patented, Pat. No. US 6037346 which is a continuation-in-part of Ser. No. US 1997-958816, filed on 28 Oct 1997, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Reamer, James H.
LEGAL REPRESENTATIVE: Reed, Dianne E.Reed & Associates
NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for treating erectile dysfunction, e.g., vasculogenic erectile dysfunction such as vasculogenic impotence. The method involves the administration of a Type III phosphodiesterase inhibitor or a pharmaceutically acceptable salt, ester, amide or derivative thereof, wherein administration is transurethral, topical or transdermal. A preferred mode of administration is transurethral. Pharmaceutical formulations and kits are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 14 OF 27 USPATFULL on STN
ACCESSION NUMBER: 2000:131835 USPATFULL
TITLE: Local administration of Type IV phosphodiesterase inhibitors for the treatment of erectile dysfunction
INVENTOR(S): Doherty, Jr., Paul C., Cupertino, CA, United States
Place, Virgil A., Kawaihae, HI, United States
Smith, William L., Montclair, NJ, United States

corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6127363		20001003
APPLICATION INFO.:	US 1999-437999		19991110 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-181070, filed on 27 Oct 1998, now patented, Pat. No. US 6037346 which is a continuation-in-part of Ser. No. US 1997-958816, filed on 28 Oct 1997, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Reamer, James H.
LEGAL REPRESENTATIVE: Reed, Dianne E.Reed & Associates
NUMBER OF CLAIMS: 106
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1455
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is provided for treating erectile dysfunction, e.g., vasculogenic erectile dysfunction such as vasculogenic impotence. The method involves the administration of a Type IV phosphodiesterase inhibitor or a pharmaceutically acceptable salt, ester, amide or derivative thereof, wherein administration is local, i.e., transurethral, intracavernosal, topical or transdermal. A preferred mode of administration is transurethral. Pharmaceutical formulations and kits are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 15 OF 27 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 1999288734 MEDLINE
DOCUMENT NUMBER: 99288734 PubMed ID: 10361888
TITLE: Effects of XT-44, a phosphodiesterase 4 inhibitor, in osteoblastgenesis and osteoclastgenesis in culture and its therapeutic effects in rat osteopenia models.
AUTHOR: Waki Y; Horita T; Miyamoto K; Ohya K; Kasugai S
CORPORATE SOURCE: Department of Pharmacology, Faculty of Dentistry, Tokyo Medical and Dental University, Japan.
SOURCE: JAPANESE JOURNAL OF PHARMACOLOGY, (1999 Apr) 79 (4) 477-83. Journal code: 2983305R. ISSN: 0021-5198.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990727
Last Updated on STN: 20000303
Entered Medline: 19990712

AB We have reported that denbufylline, a phosphodiesterase 4 (PDE4) inhibitor, inhibits bone loss in Walker256/S tumor-bearing rats, suggesting therapeutic potentiality of a PDE4 inhibitor in osteopenia. In the present study, effects of a new PDE4 inhibitor, 1-n-butyl- ***3*** - ***n*** - ***propylxanthine*** (XT-44), in bone were evaluated in cell cultures and animal experiments. In rat bone marrow culture, XT-44 stimulated mineralized-nodule formation, whereas it inhibited osteoclast-like cell formation in mouse bone marrow culture. In Walker256/S-bearing rats (6-week-old female Wistar Imamichi rats), rapid decrease in bone mineral density (BMD) was prominent, and oral administration of XT-44 (0.3 mg/kg, every 2 days) inhibited the decrease in BMD. In the second animal experiment, female Wistar rats (6-week-old) were sciatic neurectomized, and XT-44 was orally administered to these rats every 2 days for 4 weeks. XT-44 administration (0.3 mg/kg) recovered BMD in these neurectomized animals. Furthermore, 19-week-old, female Wistar rats were ovariectomized (OVX), and 15 weeks after surgery, these rats were orally administered XT-44 every 2 days for 8 weeks. XT-44 treatment (1 mg/kg) increased the BMD of OVX rats. These results indicate that XT-44 could be a candidate as a therapeutic drug for treating osteopenia including osteoporosis.

L2 ANSWER 16 OF 27 USPATFULL on STN
ACCESSION NUMBER: 1998:150945 USPATFULL
TITLE: Compounds for inhibition of ceramide-mediated signal transduction
INVENTOR(S): Carson, Dennis A., Del Mar, CA, United States
Cottam, Howard B., Fallbrook, CA, United States

PATENT ASSIGNEE(S): The Regents of the University of California, Alameda, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5843943		19981201
APPLICATION INFO.:	US 1995-482551		19950607 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-367102, filed on 29 Dec 1994
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Ford, John M.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 1362
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel, heterocyclic compounds having at least one ring nitrogen, disclosed side chains and, in some embodiments, an oxygen ortho to the ring nitrogen inhibit inflammatory responses associated with TNF-.alpha. and fibroblast proliferation in vivo and in vitro. The compounds of the invention neither appreciably inhibit the activity of cAMP phosphodiesterase nor the hydrolysis of phosphatidic acid, and are neither cytotoxic nor cytostatic. Preferred compounds of the invention are esters. Methods for the use of the novel compounds to inhibit ceramide-mediated intracellular responses to stimuli in vivo (particularly TNF-.alpha.) are also described. The methods are expected to be of use in reducing inflammatory responses (for example, after angioplasty), in limiting fibrosis (for example, of the liver in cirrhosis), in inhibiting cell senescence, cell apoptosis and UV induced cutaneous immune suppression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 17 OF 27 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 96185059 MEDLINE
DOCUMENT NUMBER: 96185059 PubMed ID: 8613965
TITLE: Negative inotropic action of denbufylline through interfering with the calcium channel independently of its PDE IV inhibitory activity in guinea pig ventricle papillary muscles.
AUTHOR: Sanae F; Ohmae S; Kobayashi D; Takag K; Miyamoto K
CORPORATE SOURCE: Applied Pharmacology, Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, Japan.
SOURCE: JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, (1996 Apr) 277 (1) 54-60.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199606
ENTRY DATE: Entered STN: 19960613
Last Updated on STN: 19960613
Entered Medline: 19960606

AB The inotropic actions of xanthine derivatives with long alkyl chains were investigated in guinea pig ventricular papillary muscle. A potent and nonselective phosphodiesterase (PDE) inhibitor, 3-isobutyl-1-methylxanthine, elicited a positive inotropy and inhibited the negative inotropic effects of calcium channel inhibitors, as did a selective PDE III inhibitor, amrinone, and these effects were canceled by a protein kinase inhibitor, N-[2-(p-bromocinnamylamino)ethyl]-5-isoquinolinesulfonamide (H-89). However, 1,3-di-n-butyl-7-(2'oxopropyl)xanthine (denbufylline) and 1-n-butyl- ***3*** - ***n*** - ***propylxanthine*** (XT-044), which have potent and selective PDE IV-inhibitory activities, showed negative inotropic actions that became more potent in the presence of H-89. Denbufylline abolished the late restoration phase induced by ryanodine. This xanthine derivative attenuated the effects of both the calcium channel acting agents Bay K 8644 and verapamil, without interaction with caffeine and dihydropyridine calcium channel inhibitors, and denbufylline had little direct influence on the specific binding of [(3)H]azidopine and [(3)H]desmethoxyverapamil to cardiac membranes. A nonxanthine PDE IV inhibitor, Ro 20-1724, did not affect the inotropic actions of calcium channel inhibitors. The attenuation by denbufylline or XT-044 of the negative inotropic action of

suggest that in the ventricular papillary muscle, these xanthine derivatives elicit negative inotropy by acting on a verapamil-sensitive site of the calcium channel without involving their PDE-inhibitory activity.

L2 ANSWER 18 OF 27 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 5
ACCESSION NUMBER: 95365518 EMBASE
DOCUMENT NUMBER: 1995365518
TITLE: Cyclic AMP-dependent and cyclic AMP-independent inotropic actions of PDE inhibitors in guinea-pig ventricular papillary muscles.
AUTHOR: Miyamoto K.-I.; Ohmae S.; Sanae F.; Sawanishi H.; Tkagi K.
CORPORATE SOURCE: Department of Applied Pharmacology, Faculty of Pharmaceutical Sciences, Hokuriku University, Ho-3 Kanagawa-machi,Kanazawa 920-11, Japan
SOURCE: Folia Pharmacologica Japonica, (1995) 106/SUPPL. 1 (182P-186P).
ISSN: 0015-5691 CODEN: NYKZAU
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English
AB The inotropic actions of xanthine derivatives, having long alkyl chains, were investigated in guinea pig ventricular papillary muscle. A potent and nonselective phosphodiesterase (PDE) inhibitor, 3 isobutyl-1-methylxanthine, elicited a positive inotropy and inhibited the negative inotropic effects of calcium channel inhibitors, as well as a selective PDE III inhibitor, amrinone, these effects which were canceled by a protein kinase inhibitor, N- [2-(p-bromocinnamylamino)ethyl]-5 isoquinolinesulfonamide (H-89). However, 1,3-di-n-butyl-7-(2'-oxopropyl)xanthine (denbufylline)and 1-n-butyl- ***3*** - ***n*** - ***propylxanthine*** (XT-044), which possess potent and selective PDE IV inhibitory activities, showed negative inotropic actions which became more potent in the presence of H-89. Denbufylline allowed to disappear late restoration phase induced by ryanodine. This xanthine derivative attenuated the both effects of calcium channel acting agents, Bay K 8644 and verapamil, without interaction with caffeine and dihydropyridine calcium channel inhibitors. A nonxanthine PDE IV inhibitor, Ro 20-1724, did not affect the inotropic actions of calcium channel inhibitors. The attenuation by denbufylline or XT-044 of the negative inotropic action of verapamil was not influenced by pretreatment with H-89. These results suggest that these xanthine derivatives elicit negative inotropy through acting on a verapamil sensitive site of calcium channel without involving of their PDE inhibitory activity, in the ventricular papillary muscle.

L2 ANSWER 19 OF 27 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 95032159 MEDLINE
DOCUMENT NUMBER: 95032159 PubMed ID: 7945415
TITLE: Cyclic nucleotide phosphodiesterase isoenzymes in guinea-pig tracheal muscle and bronchorelaxation by alkylxanthines.
AUTHOR: Miyamoto K; Kurita M; Sakai R; Sanae F; Wakusawa S; Takagi K
CORPORATE SOURCE: Research Laboratory for Development of Medicine, Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, Japan.
SOURCE: BIOCHEMICAL PHARMACOLOGY, (1994 Sep 15) 48 (6) 1219-23.
Journal code: 0101032. ISSN: 0006-2952.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199411
ENTRY DATE: Entered STN: 19941222
Last Updated on STN: 19970203
Entered Medline: 19941110
AB In this study the phosphodiesterase (PDE) isoenzymes in guinea-pig trachealis smooth muscle were separated by DEAE-Sepharose anion exchange chromatography, identified, and characterized. Furthermore the effect of theophylline and 1-n-butyl- ***3*** - ***n*** - ***propylxanthine*** (BPX) on the isolated PDE isoenzymes and on their tracheal relaxant effect were investigated and compared with the nonxanthine PDE inhibitors amrinone and Ro 20-1724. We identified five distinct isoenzymes in

(PDE I), cyclic GMP-stimulated cyclic AMP PDE (PDE II), cyclic GMP-inhibited and amrinone-sensitive cyclic AMP PDE (PDE III), cyclic AMP-specific and Ro 20-1724-sensitive PDE (PDE IV), and cyclic GMP-specific PDE (PDE V). BPX strongly inhibited the PDE IV isoenzyme with high selectivity, while the inhibitory effect of theophylline was weak. The PDE IV inhibitors BPX and Ro 20-1724 synergistically increased the relaxant effect of the beta 2-adrenoceptor agonist salbutamol in carbachol-contracted trachea much more strongly than theophylline. In contrast, amrinone, a PDE III inhibitor, hardly influenced the relaxant effect of salbutamol, suggesting that the PDE IV isoenzyme is functionally associated with beta 2-adrenoceptors in guinea-pig trachea and that inhibition of this enzyme potentiates the ability of salbutamol to increase the intracellular cyclic AMP content. These results indicate that the PDE IV isoenzyme plays a significant role in alkylxanthine-mediated relaxation of guinea-pig trachea.

L2 ANSWER 20 OF 27 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1994:320005 BIOSIS
DOCUMENT NUMBER: PREV199497333005
TITLE: Selective tracheal relaxation and phosphodiesterase-IV inhibition by xanthine derivatives.
AUTHOR(S): Miyamoto, Ken-Ichi [Reprint author]; Kurita, Mariko; Ohmae, Shinji; Sakai, Ryosuke; Sanae, Fujiko; Takagi, Kenzo
CORPORATE SOURCE: Res. Lab. Development Med., Fac. Pharmaceutical Sci., Hokuriku Univ., Ho-3 Kanagawa-machi, Kanazawa 920-11, Japan
SOURCE: European Journal of Pharmacology Molecular Pharmacology Section, (1994) Vol. 15, No. 3, pp. 317-322.
CODEN: EJPPET. ISSN: 0922-4106.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jul 1994
Last Updated on STN: 27 Jul 1994
AB The effects of substitutions in the xanthine nucleus on tracheal relaxant activity, atrium chronotropic activity, adenosine A-1 affinity, and inhibitory activities on cyclic AMP-phosphodiesterase isoenzymes in guinea pigs were studied. Substitution.with a long alkyl chain at the N1-position of xanthine nucleus increased the tracheal relaxant activity without leading to positive chronotropic action, and tong alkyl chains at the N3-position increased both activities. N7-substitutions with n-propyl and 2'-oxopropyl groups, such as in denbufylline, increased bronchoselectivity. N7 substitution decreased the adenosine A-1 affinity, but substitution at either the N1- or N3-position increased it. The bronchorelaxant activity of xanthine derivatives was closely correlated with their inhibition of phosphodiesterase-IV, but not with their adenosine A-1 affinity; the positive chronotropic effects were related to their inhibition of phosphodiesterase-III. This study confirms that the bronchorelaxation of xanthine derivatives is mediated by inhibition of the isoenzyme phosphodiesterase-IV. The results of structure-activity analysis suggest that substitutions at the N1- and N7-positions should be tried in the development of xanthine derivatives that are selective bronchodilators and phosphodiesterase-IV inhibitors.

L2 ANSWER 21 OF 27 USPATFULL on STN
ACCESSION NUMBER: 93:104960 USPATFULL
TITLE: Condensed purine derivatives
INVENTOR(S): Suzuki, Fumio, Mishima, Japan
Shimada, Junichi, Shizuoka, Japan
Kuroda, Takeshi, Shizuoka, Japan
Kubo, Kazuhiro, Shizuoka, Japan
Karasawa, Akira, Huntingdon Valley, PA, United States
Ohno, Tetsuji, Shizuoka, Japan
Ohmori, Kenji, Mishima, Japan
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5270316		19931214	
APPLICATION INFO.:	US 1990-599758		19901019	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1989-273403	19891020

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Shah, Mukund J.

LEGAL REPRESENTATIVE: Fitzpatrick, Cella, Harper & Scinto
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 1620
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There are disclosed condensed purine derivatives represented by formula; ##STR1## in which R.sup.3 represents hydrogen, lower alkyl or benzyl; each of X.sup.1 and X.sup.2 independently represents hydrogen, lower alkyl, aralkyl or phenyl; and n is an integer of 0 or 1; R.sup.1 represents hydrogen, lower alkyl, alicyclic alkyl, noradamantan-3-yl, dicyclopropylmethyl or styryl; and R.sup.2 represents hydrogen, lower alkyl or alicyclic alkyl; or a pharmaceutically acceptable salt thereof. The derivatives and pharmaceutically acceptable salts are useful as diuretics, renal protecting agents, antiallergic agents and hypotensives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 22 OF 27 USPATFULL on STN
ACCESSION NUMBER: 92:104979 USPATFULL
TITLE: s-Triazolo(3,4-I)purine derivatives
INVENTOR(S): Suzuki, Fumio, Mishima, Japan
Shimada, Junichi, Shizuoka, Japan
Ohmori, Kenji, Mishima, Japan
Manabe, Haruhiko, Shizuoka, Japan
Kubo, Kazuihiro, Shizuoka, Japan
Karasawa, Akira, Huntingdon Valley, PA, United States
Ohno, Tetsuji, Shizuoka, Japan
Shiozaki, Shizuo, Fuji, Japan
Ishii, Akio, Shizuoka, Japan
Shuto, Katsuichi, Mishima, Japan
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5173492		19921222
APPLICATION INFO.:	US 1991-752180		19910823 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1990-581562, filed on 12 Sep 1990, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1989-239117	19890914
	JP 1989-261761	19891006

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Bond, Robert T.
ASSISTANT EXAMINER: Gupta, Y. N.
LEGAL REPRESENTATIVE: Fitzpatrick, Cella, Harper & Scinto
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 2150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There are disclosed s-triazolo[3,4-i]purine derivatives represented by formula: ##STR1## wherein Y-Z represents ##STR2## R.sub.4 represents hydrogen, alkyl, substituted or unsubstituted aromatic heterocyclic group or substituted or unsubstituted aryl; and X.sup.2 represents oxygen, sulfur or NH; each of R.sup.1 and R.sup.2 independently represents hydrogen, alkyl, cycloalkyl, aralkyl or substituted or unsubstituted aryl; R.sup.3 represents alkyl, cycloalkyl, aralkyl or substituted or unsubstituted aryl; X.sup.1 represents oxygen or sulfur; and represents a single bond or a double bond or pharmaceutically acceptable salts thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 23 OF 27 USPATFULL on STN
ACCESSION NUMBER: 92:5575 USPATFULL
TITLE: Therapeutic xanthine derivatives for the treatment of peptic ulcer disease
INVENTOR(S): Wolf, Erhard, Hofheim am Taunus, Germany, Federal Republic of
Gebert, Ulrich, Kelkheim, Germany, Federal Republic of
Furrer, Harald, Kelkheim, Germany, Federal Republic of
Tanaka, Toshizo, Saitama, Japan

	Goto, Masayoshi, Kanagawa, Japan
PATENT ASSIGNEE(S):	Hoechst Japan Limited, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5082845		19920121
APPLICATION INFO.:	US 1989-311910		19890217 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1988-35484	19880219

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Rivers, Diana G.
LEGAL REPRESENTATIVE:	Finnegan, Henderson, Farabow, Garrett, and Dunner
NUMBER OF CLAIMS:	8
EXEMPLARY CLAIM:	1,5
LINE COUNT:	572

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Therapeutic agents for the treatment of peptic ulcer disease, containing as active ingredient, at least one compound of the general formula ##STR1## wherein R.sup.1 and R.sup.3 are the same or different and are each (C.sub.1 -C.sub.8)alkyl, ##STR2## R.sup.2 is (C.sub.1 -C.sub.4)alkyl; R.sup.4 and R.sup.5 are the same or different and are each hydrogen or (C.sub.1 -C.sub.2)alkyl; R.sup.6 is (C.sub.1 -C.sub.2)alkyl; and m, n and p are the same or different and are each 1, 2, 3, 4, 5 or 6; with the proviso that one of the groups R.sup.1 and R.sup.3 is ##STR3## or that R.sup.3 represents ##STR4## Some of the compounds of formula I are novel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 24 OF 27 MEDLINE on STN DUPLICATE 7

ACCESSION NUMBER:	91275356 MEDLINE
DOCUMENT NUMBER:	91275356 PubMed ID: 1647281
TITLE:	Inhibition of cyclic GMP phosphodiesterase by xanthine derivatives relaxes guinea-pig trachealis smooth muscle.
AUTHOR:	Tanaka H; Ogawa K; Takagi K; Satake T; Hidaka H
CORPORATE SOURCE:	Second Department of Internal Medicine, Nagoya University School of Medicine, Japan.
SOURCE:	CLINICAL AND EXPERIMENTAL PHARMACOLOGY AND PHYSIOLOGY, (1991 Mar) 18 (3) 163-8. Journal code: 0425076. ISSN: 0305-1870.
PUB. COUNTRY:	ENGLAND: United Kingdom
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	199107
ENTRY DATE:	Entered STN: 19910818 Last Updated on STN: 19970203 Entered Medline: 19910729

AB 1. For the purpose of clarifying the mechanism of the airways smooth muscle relaxant action of xanthines, cyclic guanosine monophosphate (GMP) phosphodiesterase (PDE) from guinea-pig trachealis muscle was purified with diethylaminoethyl ether (DEAE) cellulose column chromatography. 2. Five 3-alkylxanthines (3-methylxanthine, 3-ethylxanthine, ***3*** - ***n*** - ***propylxanthine*** (enprofylline), 3-n-butylxanthine, and 3-iso-butylxanthine), and five 1-methyl-3-alkylxanthines (1-methyl-3-methyl-xanthine (theophylline), 1-methyl-3-ethylxanthine, 1-methyl- ***3*** - ***n*** - ***propylxanthine*** , 1-methyl-3-n-butylxanthine, and 1-methyl-3-iso-butylxanthine (IBMX] were compared in terms of purified cyclic GMP PDE inhibition. The relationship between the structure and inhibition of cyclic GMP PDE was studied. 3. The -log EC50 values for relaxation of spontaneous tone of isolated guinea-pig trachealis preparations by the 3-alkylxanthines and 1-methyl-3-alkylxanthines were determined. 4. The five 1-methyl-3-alkylxanthines were each more potent in relaxing isolated trachealis smooth muscle than the corresponding 3-alkylxanthines. The 1-methyl-3-alkylxanthines were also more potent than the corresponding 3-alkylxanthines in their cyclic GMP PDE inhibitory effect. There was a strong positive correlation between the concentration of inhibitor which inhibited hydrolysis by 50% (IC50) values for cyclic GMP PDE inhibition by the xanthine derivatives and their EC50 values for trachealis muscle relaxation. 5. It is suggested that the mechanism by which xanthine derivatives relax trachealis smooth muscle involves inhibition of cyclic

L2 ANSWER 25 OF 27 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 89336274 MEDLINE
DOCUMENT NUMBER: 89336274 PubMed ID: 2547475
TITLE: Mechanism of xanthine-induced relaxation of guinea-pig isolated trachealis muscle.
AUTHOR: Ogawa K; Takagi K; Satake T
CORPORATE SOURCE: Second Department of Internal Medicine, School of Medicine, Nagoya University, Japan.
SOURCE: BRITISH JOURNAL OF PHARMACOLOGY, (1989 Jun) 97 (2) 542-6. Journal code: 7502536. ISSN: 0007-1188.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198909
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 19900309
Entered Medline: 19890921

AB 1. Four 3-alkylxanthines (3-methylxanthine, ***3*** - ***n*** - ***propylxanthine*** (enprofylline), 3-n-butylxanthine and 3-iso-butylxanthine) and four 1-methyl-3-alkylxanthines (1-methyl-3-methylxanthine (theophylline), 1-methyl- ***3*** - ***n*** - ***propylxanthine*** , 1-methyl-3-n-butylxanthine and 1-methyl-3-iso-butylxanthine (IBMX], were compared in terms of cyclic AMP phosphodiesterase (PDE) inhibition and trachealis muscle relaxation. The relationship between xanthine structure and cyclic AMP PDE inhibition was also studied. 2. Xanthine induced relaxation of guinea-pig isolated trachealis muscle was measured against spontaneous tone. 3. The four 1-methyl-3-alkylxanthines were each significantly more potent than the corresponding 3-alkylxanthines in relaxing the isolated trachealis muscle. The 1-methyl-3-alkylxanthines were similarly more potent than the corresponding 3-alkyl derivatives in inhibiting low Km cyclic AMP PDE. There was a strong positive correlation between low Km cyclic AMP PDE inhibition and the tracheal smooth muscle relaxation evoked by the xanthine derivatives. 4. Since methylation of the 1-position of each 3-alkylxanthine increased the potency of the derivative in inhibiting low Km cyclic AMP PDE and in relaxing trachealis muscle and since a strong positive correlation was observed between the relaxant EC50 and the Ki value of each xanthine derivative, it is suggested that low Km cyclic AMP PDE inhibition by xanthines plays an important role in their tracheal relaxant effect.

L2 ANSWER 26 OF 27 USPATFULL on STN
ACCESSION NUMBER: 88:72477 USPATFULL
TITLE: 8-arylxanthines
INVENTOR(S): Rzeszotarski, Waclaw J., Millersville, MD, United States
Hicks, Rickey P., Columbia, MD, United States
Erickson, Ronald H., Baltimore, MD, United States
PATENT ASSIGNEE(S): Marion Laboratories, Inc., Kansas City, MO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4783530		19881108
APPLICATION INFO.:	US 1987-108990		19871001 (7)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1986-931620, filed on 13 Nov 1986, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rizzo, Nicholas S.
LEGAL REPRESENTATIVE: Dewey, Ballantine, Busby, Palmer & Wood
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 1,3-alkylsubstituted-8-(3,4-,3- or 4-substituted phenyl)xanthines and pharmaceutically acceptable salts of such compounds are disclosed. The 3-substituents are hydrogen, dimethylaminomethyl, or 2,3-dihydroxypropyloxy. The 4-substituents are selected from hydroxy, cyano, --NHCON(R.sub.5).sub.2, --C(.dbd.NH)N(R.sub.5).sub.2, --NH--C(.dbd.NH)N(R.sub.5).sub.2, with each R.sub.5 independently being hydrogen or an alkyl group of one to three carbons and provided that when the 3-substituent is hydrogen the 4-substituent is not hydroxy or hydrogen.

The compounds are potent adenosine receptor antagonists having relatively low lipophilicity. The compounds are intended for use as bronchodilators and cardiotonics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 27 OF 27 USPATFULL on STN
ACCESSION NUMBER: 78:58763 USPATFULL
TITLE: Xanthine compounds and method of treating bronchospastic and allergic diseases
INVENTOR(S): Diamond, Julius, Morris Plains, NJ, United States
PATENT ASSIGNEE(S): Cooper Laboratories, Inc., Parsippany, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4120947		19781017
APPLICATION INFO.:	US 1976-672388		19760331 (5)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Schenkman, Leonard
LEGAL REPRESENTATIVE: Kolano, John J., Boland, Thomas R.
NUMBER OF CLAIMS: 48
EXEMPLARY CLAIM: 1,16
LINE COUNT: 1360
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Bronchial asthma and other bronchospastic and allergic diseases are treated by administering an effective amount of a substituted xanthine compound having the formula: ##STR1## wherein: R.sub.1 = C.sub.1 -C.sub.3 alkyl,

R.sub.3 = c.sub.1 -c.sub.7 alkyl, C.sub.3 -C.sub.7 alkenyl, C.sub.3 -C.sub.7 alkynyl, C.sub.3 -C.sub.7 cycloalkyl or C.sub.4 -C.sub.7 cycloalkylalkyl,

R.sub.8 = h, c.sub.1 -c.sub.4 alkyl, C.sub.3 -C.sub.4 alkenyl, C.sub.3 -C.sub.4 alkynyl or C.sub.3 -C.sub.4 cycloalkyl,

R = c.sub.1 -c.sub.4 alkyl, 2-halo C.sub.2 -C.sub.3 alkyl, or phenyl

Novel and preferred bronchodilator and antiallergy compounds are disclosed having the formula ##STR2## wherein: R.sub.1 = C.sub.1 -C.sub.2 alkyl

R.sub.3 = ch.sub.2 --(c.sub.3 -c.sub.4 alkyl),--CH.sub.2 --(C.sub.3 -C.sub.4 alkenyl), or --CH.sub.2 --(C.sub.3 -C.sub.4 cycloalkyl)

R.sub.8 = h, c.sub.1 -c.sub.2 alkyl,

R = c.sub.1 -c.sub.4 alkyl, 2-halo C.sub.2 -C.sub.3 alkyl, or phenyl

The bronchodilator and antiallergy agents may be administered in the form of tablets, capsules or aerosols.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

=>
Executing the logoff script...

=> LOG H

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	56.69	56.90

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.65	-0.65

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:30:30 ON 27 OCT 2003